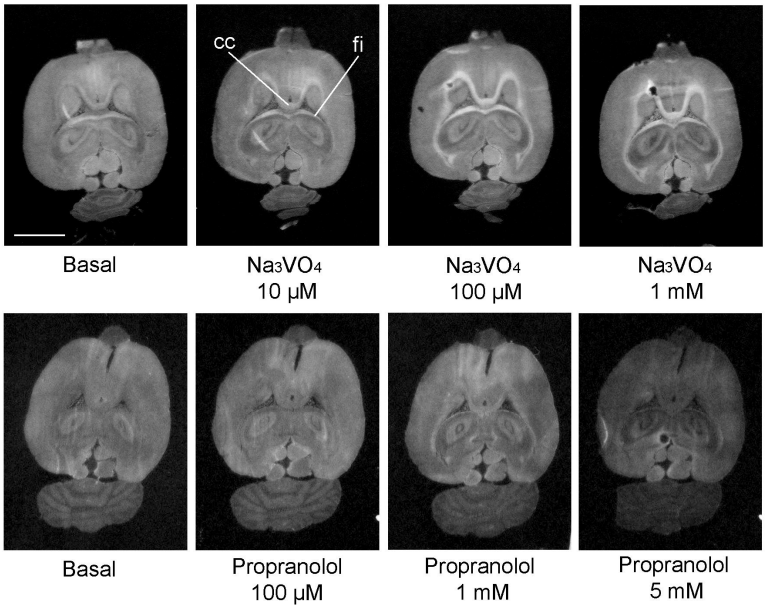

Additional file 1. The maximal effective concentrations for Na_3VO_4 and propranolol in amplifying basal LPA_1 receptor activity are 100 µM and 1 mM, respectively. Functional autoradiography using horizontal sections of 4 week-old rat brain was performed using a three-step protocol as detailed in Methods. Vanadate or propranolol were included at the indicated concentrations during the [^{35}S]GTPγS labelling step (step 3) which additionally contained 0.1 % BSA. Treatment with Na_3VO_4 or propranolol results in G protein activity in the LPA_1 receptor enriched white matter tracts (cc, corpus callosum; fi, fimbria of the hippocampus). A modest response is evident with 10 µM Na_3VO_4 and the maximal effective concentration is 100 µM. The maximal effective concentration of propranolol is 1 mM whereas a 10-fold lower concentration is ineffective and a 5-fold higher concentration decreases the overall binding. Scale bar = 5 mm.